APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/020,854	12/14/2001	Steven L. Scott	499.710US1	6674

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EXAMINER
HALIYUR, VENKATESH N

ART UNIT	PAPER NUMBER
2616	

MAIL DATE	DELIVERY MODE
06/11/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

	Application No.	Applicant(s)
	10/020,854	SCOTT ET AL.
Office Action Summary	Examiner	Art Unit	
	Venkatesh Haliyur	2616	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *21 March 2007*.

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-27* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-4,7,8,10-15,18,19,21-23,26 and 27* is/are rejected.

7)☒ Claim(s) *5,6,9,16,17,20,24 and 25* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☒ Information Disclosure Statement(s) (PTO/SB/08)
    Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____.

5)☐ Notice of Informal Patent Application

6)☐ Other: _____.

DETAILED ACTION

Continued Examination

1.   A request for continued examination under 37 CFR 1.114, including the fee set

forth in 37 CFR 1.17(e), was filed in this application after allowance or after an Office

action under *Ex Parte Quayle*, 25 USPQ 74, 453 O.G. 213 (Comm'r Pat. 1935). Since

this application is eligible for continued examination under 37 CFR 1.114, and the fee

set forth in 37 CFR 1.17(e) has been timely paid, prosecution in this application has

been reopened pursuant to 37 CFR 1.114. Applicant's submission filed on 03/21/2007

has been entered.

2.   Claims 1-27 are pending in the application.

Claim Rejections - 35 USC § 102

3.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that

form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
>   (e) the invention was described in (1) an application for patent, published under section 122(b), by another
> filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for
> patent by another filed in the United States before the invention by the applicant for patent, except that an
> international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this
> subsection of an application filed in the United States only if the international application designated the United States
> and was published under Article 21(2) of such treaty in the English language.

4.   Claims 1-4,7-8,10-15,18-19,21-23,26-27 is rejected under 35 U.S.C. 102(e) as

being anticipated by Forin [US Pat: 6,321,276].

        Regarding claims 1,12, Forin in the invention of "Recoverable Methods and

Systems for Processing Input/Output Requests Including Virtual Memory Addresses"

disclosed a method of node translation for communicating over virtual channels in a

clustered multiprocessor system, the clustered multiprocessor system including a

plurality of processing element nodes including a local processing element node and a

remote processing element node, and a network interconnect coupled between the

processing element nodes for sending communications between the processing

element nodes, wherein the local processing element node **(network node)** includes a

processor and a communication engine **(Figs 1-2,6)**, comprising: assigning a

connection descriptor to a virtual connection **(col 3, lines 40-65)** the connection

descriptor being a handle that specifies an endpoint node for the virtual connection

(logical connection, col 6, lines 47-67, col 7 lines 1-19); defining a local connection

table accessible by the communication engine **(virtual interface agent, Fig 6)**, wherein

the local connection table is configured to be accessed using the connection descriptor

to produce a system node identifier for the endpoint node **(col 14, lines 52-67)**;

generating, within the processor, a communication request including the connection

descriptor **(request processor, 60, col 15, lines 1-18)**; in response to the

communication request, accessing, via the communication engine, the local connection

table using the connection descriptor of the communication request to produce the

system node identifier for the endpoint node **(remote node)** for the virtual connection

(col 15, lines 19-36); and sending a memory request from the communication engine to

the endpoint node, wherein the memory request is sent to the local processing element

node if the endpoint node is the local processing element node **(col 15, lines 37-43)**,

and is sent over the network interconnect **(interconnection nodes)** to the remote

processing element node if the endpoint node is the remote processing element node

and wherein transfer of data associated with the memory request occurs **(data store,**

col 14, lines 32-51) independently of the processor that generated the communication

request **(col 15, lines 44-63) [Fig 2, col 7, lines 65-67, col 8, lines 1-46]**.

Regarding claims 22-23, Forin disclosed in a clustered multiprocessor system

including a plurality of processing element nodes, including a local processing element

node and a remote processing element node, and a network interconnect coupled

between the processing element nodes for sending communications between the

processing element nodes, a node translation apparatus **(Figs 2,4)** comprising:

a memory configured to store a local connection table having a plurality of entries

indexed by a connection descriptor **(col 10, lines 49-60)**, each entry of the local

connection table storing a system node identifier for the endpoint of a virtual connection

(logical connection); and a communication engine **(virtual interface agent, Fig 6, col**

14, lines 32-67, col 15, lines 1-19) connected to one or more processors in the local

processing element node **(network node)** and configured to receive a communication

request including a connection descriptor from a user process executing on one of the

processors in the local processing element node **(col 10, lines 61-67)**, to access the

local connection table using the connection descriptor of the communication request to

produce the system node identifier for the endpoint node **(remote node)** for the virtual

connection, and to send a memory request to the endpoint node identified using the

local connection table **(col 11, lines 1-30)**, wherein the memory request is sent

internally to the endpoint node if the endpoint node is located within the local processing

element node, and is sent over the network interconnect **(interconnection nodes)** to

the endpoint node if the endpoint node is located within the remote processing element

node, wherein transfer of data associated with the memory request occurs

independently of the processor that generated the communication request **(col 11, lines

31-67)**.

Regarding claim 2-4,13-15, Forin disclosed assigning is performed by a local

operating system in response to an operating system call by a local user process **(col 2,

lines 45-58)** and assigning uses the connection descriptor to define a logical connection

between a first virtual address space used by a local user process and a second virtual

address space, whereby the connection descriptor allows the local user process to

access the second virtual address space and defining is performed by the local

operating system, which defines a local connection table for each user process **(col 2,

lines 59-67,col 3, lines 1-26)**.

Regarding claims 7-8, 18-19,Forin disclosed wherein generating is performed by

a local user process, which applies the communication request to the communication

engine **(virtual interface agent)** and accessing and sending are performed by the

communication engine in response to the communication request **(col 14, lines 52-67,

col 15, lines 1-19, Fig 6)**.

Regarding claims 10-11,21, Forin disclosed wherein generating, accessing and sending are performed without intervention by an operating system **(col 13, lines 15-22)** and sending includes determining if a maximum number of outstanding packets has been reached **(page out, col 13, lines 23-49)**.

Regarding claims 26-27, Forin disclosed wherein each processing element node includes a communication engine **(virtual interface agent)**, wherein address translation occurs within the communication engine and wherein a communication engine on one processing element node performs address translation for an address on another processing element node **(col 11, lines 11-30)**.

Allowable Subject Matter

5.   Claims 5,6,9,16,17,20,24,25 objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

6.   Any inquiry concerning this communication or earlier communications should be directed to the attention to Venkatesh Haliyur whose phone number is 571-272-8616. The examiner can normally be reached on Monday-Friday from 9:00AM to 5:00 PM. If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Wing Chan can be reached @ (571)-272-7493. Any inquiry of a general

nature or relating to the status of this application or proceeding should be directed to the

group receptionist whose telephone number is (571)-272-2600 or fax to 571-273-8300.

7.   Information regarding the status of an application may be obtained from the

Patent Application Information Retrieval (PAIR) system. Status information for published

applications may be obtained from either Private PAIR or Public PAIR. Status

information for unpublished applications is available through Private PAIR only. For

more information about the PAIR system, see http://pair-direct.uspto.gov. Should you

have questions on access to the Private PAIR system, contact the Electronic Business

Center (EBC) at 866-217-9197(toll-free).

Venkatesh Haliyur

Patent Examiner

WING CHAN
SUPERVISORY PATENT EXAMINER